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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,587	04/26/2001	Raymond A. Schoenfelder	7432.122US11	8735

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MINNEAPOLIS, MN 55402-0903

EXAMINER
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LUM, LEE S

ART UNIT	PAPER NUMBER
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3611

DATE MAILED: 12/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/843,587

Applicant(s)

SCHOENFELDER, RAYMOND A.

Examiner

Ms. Lee S. Lum

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amdt 10/7/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 12-26, 28-31, 33, 34, 36-39 and 42-49 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7, 28-31, 33, 39 and 42-49 is/are allowed.
- 6) ☒ Claim(s) 1-7, 12-25, 34 and 36 is/are rejected.
- 7) ☒ Claim(s) 26, 37 and 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 April 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. An Amendment was filed 10/7/03. The Claims provided for examination are 1-7, 12-26, 28-31, 33, 34, 36-39 and 42-49.

2. The drawings are objected to because fig 8 does not identify the "second shaft 145".

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 1-7, 12-20 and 34** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claim 1, "second shaft" lacks antecedent basis.

In Claim 12, it is recited "said ring gear having a single...radial position" (emphasis added) is unclear.

In Claim 13, "said planetary gears serving to drive said ring gear" (emphasis added) contradicts all other relevant claims reciting the ring gear as "immovable". Also, in line 5, "ring gear" should be preceded by "the" because it was established in Claim 12. (Incidentally, the amendment preceding "ring gear" - "said planetary gear system further includes" - appears redundant for the same reason)

In Claim 34, second-to-last line, "primary clutch" lacks antecedent basis.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4A. **Claims 21-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bombardier 3698497 in view of Showalter 5833566.

Bombardier discloses a snowmobile comprising  
Engine 10 with drive shaft 36, and,  
Endless track 16 driven by track shaft 21.

The reference does not disclose a planetary gear system driving the track, while Showalter shows this exemplary system 16 including

Fixed housing (unidentified, inherent),  
Rotatably sun gear 92 driven by drive shaft 62,  
Plurality of planets 96 driven by the sun gear, and engaged by immovable ring gear 104.

Although Bombardier's CVT is a functionally equivalent transmission, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include this alternate transmission, as shown in Showalter, as an example of a planetary gear system that is known in the art, and is as efficient and reliable as a CVT, to effect forward movement for the vehicle.

4B. **Claim 36** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bombardier in view of Avramidis 3884097.

Bombardier further discloses the snowmobile as comprising  
Skis (unidentified in fig 2) supporting a forward portion of the frame.

The reference does not disclose a planetary gear, and multiple clutch, system, while Avramidis shows this arrangement with

Planetary gear system 20,

Primary 28, and secondary 60, clutches, connected by chain 68,

The planetary gear system including

First shaft 32 driving sun gear 150, and driven by engine shaft 24,

Planets continuously rotating about the sun gear when the latter is driven by the first shaft (Table D),

And driving second shaft 190,

The second shaft driving the track through the clutches.

5. ALLOWABLE SUBJECT MATTER

A. **Claims 1-7 are allowable** because prior art does not disclose a snowmobile comprising, *inter alia*,

A drive train including a planetary gear system,

Primary and secondary clutch system, each with a different axis,

First and second noncoaxial shafts, the second shaft being coaxial with the secondary clutch, and, includes a planetary gear plate.

B. As best understood, **Claims 12-20 are allowable** because prior art does not disclose a snowmobile comprising, *inter alia*,

A drive train including a planetary gear system,

First shaft coupled to a drive shaft, and a sun gear,

Planets continuously rotating about the sun gear when the latter is driven by the first shaft,

The planets and sun gear continuously rotate relative to a ring gear when the drive shaft rotates,

The ring gear included on the second shaft, and

The second shaft driving an endless track.

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D. **Claims 28-31 and 33 are allowable** because prior art does not disclose a snowmobile comprising, *inter alia*,

The first shaft being coaxial with the secondary clutch axis.

E. **Claim 34 is allowable** because prior art does not disclose a snowmobile comprising, *inter alia*,

A drive train including a planetary gear system including

A ring gear that is fixed to a housing, and immovable relative to a sun gear and the planets, and,

Primary and secondary clutches, the secondary clutch serving to drive the endless track.

F. **Claims 39 and 42-44 are allowable** because prior art does not disclose a snowmobile comprising, *inter alia*,

An engine drive shaft,

A track shaft noncoaxial with the drive shaft,

A planetary gear system including an input shaft and second shaft, both shafts being coaxial with the track shaft, and,

Gear reduction from the input shaft to the second shaft.

G. **Claims 45-48 are allowable** because prior art does not disclose a snowmobile comprising, *inter alia*,

A drive train including a planetary gear system,

The system including an input shaft and coaxial second shaft, with gear reduction between the shafts, and,

A sprocket on a track shaft, and driven by the second shaft.

H. **Claim 49 is allowable** because prior art does not disclose a snowmobile comprising, *inter alia*,

A CVT including primary and secondary noncoaxial clutches,

The primary clutch axis being coaxial with an engine drive shaft,

The secondary clutch axis being coaxial with a track shaft, and,

The secondary clutch driving the track shaft.

I. **Claims 23, 37, 38 and 46-48** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

5. RESPONSE TO REMARKS

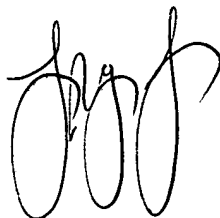
Examiner has provided a new rejection to Claims 21-25 with Bombadier in view of Showalter. The rejection of Claim 36 is maintained because the references disclose the recited elements. Applicant is asked to note allowable subject matter.

6. The prior art made of record, and not relied upon, is pertinent to this disclosure: Eto 5992552.

7. Communication with the Examiner and USPTO

Any inquiry concerning this communication should be directed to Ms. Lum at (703) 305-0232, M-F, 9-6. Our fax number is (703) 872-9306. Any inquiry of a general nature, or relating to the status of this application/proceeding, should be directed to Customer Assistance at (703) 306-5771.

Ms. Lee S. Lum  
Examiner  
12/5/03

A handwritten signature in black ink, appearing to be 'Lum' or similar, written in a cursive style.